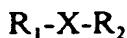


STRUCTURALLY DETERMINED
METALLO-CONSTRUCTS AND APPLICATIONS

ABSTRACT OF THE INVENTION

A metallo-construct, which may be a peptide, is provided for use as a biological, 5 therapeutic, diagnostic imaging, or radiotherapeutic agent, and for use in library or combinatorial chemistry methods. The construct has a conformationally constrained global secondary structure obtained upon complexing with a metal ion. The peptide constructs are of the general formula:



10 where X is a plurality of amino acids and includes a complexing backbone for complexing metal ions, so that substantially all of the valences of the metal ion are satisfied upon complexation of the metal ion with X, resulting in a specific regional secondary structure forming a part of the global secondary structure; and where R₁ and R₂ each include from 0 to about 20 amino acids, the amino acids being selected so that 15 upon complexing the metal ion with X at least a portion of either R₁ or R₂ or both have a structure forming the balance of the conformationally constrained global secondary structure. All or a portion of the global secondary structure, which may be sychnologic or rhegnylogic, may form a ligand or mimic a known biological-function domain. The construct has substantially higher affinity for its target upon labeling with a metal ion.

SS
6/5/96